

ABSTRACT OF THE DISCLOSURE

A method and apparatus for determining position in a pipe provides for the precise determination of location and associated characteristics of each pipe joint of a well, cross country pipeline or other fluid transmission line. The system includes a passive or active radio identification device at each joint in the pipe or casing string. The devices are preferably sealed within the resilient seal positioned between each pipe or casing joint. A pipeline tool includes a radio transmitter and receiver, with the transmitter transmitting on a frequency selected for resonating the identification devices. The resonant response of each device is detected by a receiver in the pipeline tool, with the response transmitted to the surface via the wireline to which the tool is connected. Alternatively, the tool may include storage information means until the tool can be recovered from the well or pipe. An information storage and retrieval system includes information on the location of each of the identification devices in the well or pipe, e. g., length or depth, pipe or casing diameter, previously logged geological characteristics and stratum at each identification device location, etc. The system may count each device as the tool passes through the pipe in order to determine the location of the tool at any point. Alternatively, each identification device may provide a distinct signal, with the tool transmitting the signal to the surface (or storing the signal for later retrieval) where the system correlates the signal with previously logged information for that specific location.